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EXAMINER	
MAKI, STEVEN D	

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/763,180	LAMOINE ET AL.	
	Examiner	Art Unit	
	Steven D. Maki	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *23-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2) Claims 23-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 23-34, the description of "the profiled element constituting in the cross-linked condition in a tread for a tire and being delimited in width by two lateral faces which interconnect radially and outer faces of the tread" (claim 23) is confusing and ambiguous. It is unclear if this language (1) relates to intended use (i.e. the extruded profile element is *intended to be shaped* such that (a) the shaped extruded profiled element has two lateral faces and inner and outer faces and (b) the shaped extruded profiled element is a tread for a tire) or (2) limits claim 23 to a cross-linkable rubber tread. In other words, it is unclear if claim 23 requires lateral faces and inner and outer faces. It is unclear if claim 23 requires a tire tread.

In claim 27, "in side" should be --inside--.

In claim 29, "rage" should be --range--.

In claim 30, "emerges at the surface of one of each lateral face" is confusing and ambiguous. Should "one of each lateral face" be --one or each lateral face--?.

Claim 33 is ambiguous since it is unclear if this claim reads on a cross linked tread comprising a cross linkable extruded profile element instead of a cross linked tread made by cross linking the cross linkable extruded profiled element.

3) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

German 892 (tread)

4) **Claims 23-27 and 29-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over German 892 (DE 10014892) in view of Europe 397 (EP 795397) and optionally Delorme (US 2,174,779).**

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

German 892 discloses forming a cross-linkable tire tread comprising alternating layers having different abrasion resistance. One layer (30-70% of the tread) having the higher abrasion resistance comprises a first mixture comprising rubber and 50-95 parts carbon black but no silica and is therefore an electrically conducting material. The other layer (70 to 30%) having the lower abrasion resistance comprises a second mixture comprising rubber and 50-95 parts silica but no carbon black and is therefore electrically insulating. German 892 teaches feeding the mixtures to an extruder having a rotating screw, extruding a tread, applying the tread to a partial tire, and molding and vulcanizing the tire such that the alternating layers follow the contours of the profile elements of the tread; the alternating layers being spirally arranged so as to be generally concentric. Figure 2 illustrates the layers as being generally concentric. German describes a

"spiral picture" (spiral arrangement). See page 6 lines 1-7 of machine translation for German 892. The optional Delorme is evidence supporting this conclusion that German 892 teaches generally concentric layers since Delorme, like German 892, extrudes two different compositions by extruding the two different compositions from an apparatus using a rotating core. The rotating core in German 892 is an endless screw. The rotating core in Delorme is a cylinder 30. Furthermore, German 892 teaches that each layer is very thin and has a thickness less than 1 mm such as 0.5 mm.

As to claim 23, it would have been obvious to one of ordinary skill in the art to form German 892's tread such that the number of turns is 30-70 since (1) German 892, directed to a tire tread made from alternating layers having different abrasion resistance, teaches providing each thin layer with a thickness of less than 1 mm and (2) Europe 397, also directed to a tire tread made from alternating layers having different abrasion resistance, teaches providing each thin layer such that there are at least 200 layers per 25.4 mm so that the tire has high abrasion resistance and (3) it is taken as well known / conventional per se in the tire tread art to form a single layer tire tread or a cap layer of a tire tread with a thickness in the range of about 8 mm or less. With a 8 mm thick tread comprising spirally arranged layers and having a density of 200 layers per 25.4 mm, the number of turns is 63. Applicant's arguments regarding reducing interference perceivable in the amplitude modulation of radio receivers when traveling over electrically conductive road elements, e.g. metal parts, of a bridge, man hole covers, or train tracks is not persuasive. No unexpected results over German 892 has been shown.

As to claims 24-27, German 892's extruded tread has alternating layers in a spiral configuration. In any event: it would have been obvious to form the extruded tread such that the "layers are globally wound" (claim 24) or helicoidal filaments are formed (claims 25-27) since (1) German 892 teaches feeding the mixtures to an extruder having a rotating screw, extruding a tread, applying the tread to a partial tire and molding and vulcanizing the tire such that the alternating layers of the tread follow the contours of the profile elements of the tread; the alternating layers being spirally arranged so as to be generally concentric (figure 2, pages 5-6 of machine translation) and (2) Delorme suggests forming a spiral arrangement (figure 15) of two different extrudable materials by extruding the two different compositions from an apparatus having a rotating core. The rotating core in German 892 is an endless screw. The rotating core in Delorme is a cylinder 30.

As to claim 29, Europe 397 teaches a thickness of 0.001 to 0.15 mm.

As to claim 30, German 892's layers emerge at the tread face. See German 892's teachings regarding formation of the tire tread. Also, note discussion at figure 3.

As to claim 31, it would have been obvious to provide a carbon black reinforced strip ("wing") at the edge of German 892's tread since it is taken as well known / conventional per se to form strips / wings at the lateral faces of the tread to provide a transition between the tread and the sidewall, which are made of different materials. Such a strip / wing ("film") is conducting since it is carbon black reinforced.

As to claim 32, German 892's strip having the high abrasion resistance has the claimed electrical resistivity since it is carbon black reinforced.

As to claims 33 and 34, German 892 teaches forming a vulcanized tire from the extruded tread.

Japan 519 (tread)

5) **Claims 23-30 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 519 (JP 2000-185519) in view of Europe 397 and optionally German 892 and/or Delorme.**

Japan 519 discloses a tire having a tread formed from tread rubber comprising an insulating silica containing first rubber portion 9a and a conductive carbon black containing second rubber portion 9b. The rubber portions 9a, 9b can be arranged in annular rings or spirally arranged. An electrically conductive route is formed between a road surface and the belt of the tire so as to discharge static charge. Japan 519's tread is considered to have "generally concentric layers". In any event: it would have been obvious to form Japan 519's tread rubber such that it comprises conducting means having electrically conducting layers which are generally concentric as claimed since Japan 519 teaches forming an insulating silica containing first rubber portion 9a and a conductive carbon black containing second rubber portion 9b so as to define annular rings or a spiral configuration such that an electrically conductive path for static discharge is obtained.

As to claim 23, it would have been obvious to one of ordinary skill in the art to form Japan 519's tread such that the number of turns is 30-70 since (1) Europe 397, also directed to a tire tread made from alternating layers, teaches providing each thin layer such that there are at least 200 layers per 25.4 mm so that the tire has high

abrasion resistance and (2) it is taken as well known / conventional per se in the tire tread art to form a single layer tire tread or a cap layer of a tire tread with a thickness in the range of about 8 mm or less. With a 8 mm thick tread comprising spirally arranged layers and having a density of 200 layers per 25.4 mm, the number of turns is 63. Applicant's arguments regarding reducing interference perceivable in the amplitude modulation of radio receivers when traveling over electrically conductive road elements, e.g. metal parts, of a bridge, man hole covers, or train tracks is not persuasive. No unexpected results over Japan 519 has been shown.

As to claim 24 (globally wound), note Japan 519's teaching to form annular rings or a spiral arrangement.

As to claims 25-28, it would have been obvious to form Japan 519's tread such that helicoidal filaments are formed since (1) German 892 teaches feeding the mixtures to an extruder having a rotating screw, extruding a tread, applying the tread to a partial tire, and molding and vulcanizing the tire such that the alternating layers of the tread follow the contours of the profile elements of the tread; the alternating layers being spirally arranged so as to be generally concentric (figure 2, pages 5-6 of machine translation) and/or (2) Delorme suggests forming a spiral arrangement (figure 15) of two different extrudable materials by extruding the two different compositions from an apparatus having a rotating core. The rotating core in German 892 is an endless screw. The rotating core in Delorme is a cylinder 30. As to this combination, it is emphasized that Japan 519 expressly discloses a spiral arrangement. This disclosure, instructs one of ordinary skill in the art to look to the molding art as to suitable techniques for

obtaining this desired spiral arrangement. With respect to the mass fraction as in claim 28, Japan 519 teaches using 5-15% by weight of the second carbon black reinforced rubber and 85-95% of the first silica reinforced rubber.

As to claim 29, Europe 397 teaches a thickness of 0.001 to 0.15 mm.

As to claim 30, Japan 519's conductive layer emerges at the tread face so as to reduce electrical resistance of the tread.

As to claim 32, Japan 519's conductive rubber has the claimed electrical resistivity.

As to claims 33 and 34, Japan 519 teaches forming a vulcanized tire from the tread.

6) **Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 519 in view of in view of Europe 397 and optionally German 892 and/or Delorme as applied above and further in view of Poulbot (WO 00/27655).**

As to claim 31, it would have been obvious locate a conducting film at the lateral faces of Japan 519's silica reinforced tread in view of Poulbot's suggestion to locate a conductive films at the lateral faces of a silica reinforced tread (figure 2) in order to reduce radio interference.

Delorme and Johnson (extruded profile element)

7) **Claims 23-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delorme (US 2,174,779) in view of Johnson (US 2,138,378).**

Delormo and Johnson disclose an extruded element comprising different colored spirally arranged materials. See figure 15 of Delorme and figure 6 of Johnson. In

Delormo (figure 15), the extruded element comprises generally concentric layers. In Johnson, the different colored materials are different colored rubbers.

As to claims 23-32, it would have been obvious to one of ordinary skill in the art to use rubber for the different colored materials in Delormo's figure 15 embodiment since (1) Delormo and Johnson disclose an extruded element comprising different colored helically arranged materials and (2) Johnson suggest using different colored rubbers as the different colored materials. Furthermore, it would have been obvious to use silica reinforced rubber and carbon black reinforced rubber for the different colored rubbers suggested by Johnson since it is well known / conventional per se in the rubber art to use silica reinforced rubber to provide white rubber and carbon black reinforced rubber to provide black rubber. With respect to "conducting" and "insulating", silica is an electrically insulating material and carbon black is an electrically conductive material. As to the number of turns, it would have been obvious to one of ordinary skill in the art to form the extruded element such that it has 30-70 turns (claim 23) / the different layers have a thickness of 0.05 to 0.15 mm depending on the desired size and desired color effect since Delorme suggests forming an extruded element having spirally arranged strips of different colored material to form an article having a desired colored effect. Applicant's arguments regarding reducing interference perceivable in the amplitude modulation of radio receivers when traveling over electrically conductive road elements, e.g. metal parts, of a bridge, man hole covers, or train tracks is not commensurate in scope with claims 23-32 and is therefore not persuasive since claims 23-32 require an extruded profile element instead of a tire tread.

Remarks

8) Applicant's arguments with respect to claims 23-34 have been considered but are moot in view of the new ground(s) of rejection. The indication of allowable subject matter in the last office action has been withdrawn in view of newly cited German 10014892 and its disclosure at pages 5 and 6 of the machine translation. It is also noted that new claims 23-34 do not contain the subject matter in original claim 12.

US 3,557,265 is cited of interest as being discussed at page 3 line 24 of Europe 397.

9) No claim is allowed.

10) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
October 30, 2006

Steven D. Maki 10-30-06
STEVEN D. MAKI
PRIMARY EXAMINER